



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,190	12/31/2003	Toshiyuki Ogata	Q77760	5536
7590	11/04/2005		EXAMINER	
SUGHRUE, MION, ZINN, MACPEAK & SEAS 2100 Pennsylvania Avenue, N.W. Washington, DC 20037		ZIMMER, MARC S		
		ART UNIT		PAPER NUMBER
		1712		

DATE MAILED: 11/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/748,190	OGATA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Marc S. Zimmer	1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 25 August 2005.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1,5 and 6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1,5 and 6 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. 09/922723.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_

Based on the Examiner's indication that claim 4 was allowable over *Lin* and claim 7 was allowable over *Tokutake*, Applicant has amended claim 1 to include the limitations of both original claims 1 and 7. (Claims 4 and 7 were never formally held as being allowable subject matter over *Lin* and *Tokutake* respectively but Applicant recognized that these claims had not been rejected over both references and, therefore, reasonably assumed that the insertion of their collective subject matter into the base claim would render it and claims 5 and 6 allowable.) It is the opinion of the Examiner, however, that claim 7 is not patentable over *Tokutake* despite the failure of this reference to disclose a suitable molecular weight. The Examiner sincerely regrets any inconvenience to the Applicant.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 5, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Tokutake et al.*, JP 4-130324 in view of *Lin et al.*, U.S. patent # 6,340,734. *Tokutake et al.*, again, do not provide any indication as to what constitutes a suitable molecular weight range for the organosilicon polymer material. Nevertheless, in the absence of an express teaching of a recommended molecular weight range associated with this component, the skilled artisan will turn to the related art to make a determination as to what molecular weight range has been deemed suitable for

structurally similar polymers used in a similar capacity. Lin et al. disclose a number of silsesquioxane polymer to be employed in the formation of photoresist layers that had anticipated numerous aspects of the originally claimed invention but fail to anticipate the claims as they are presently written for the reason that hydroxylbenzylsilsesquioxane units are not described. On the other hand, Lin discloses a weight-average molecular weight range that almost exactly coincides with that recited by the claim. Given that (i) the polymers disclosed by Lin and Tokutake comprise nearly all the same structural attributes and (ii) the polymers described by each are used for the same purpose, one of ordinary skill would presume that polymers of comparable molecular weight are advantageously employed in the practice of the latter's invention.

As an aside, where polymer formulations are concerned, the molecular weight of the polymer nearly always has important implications for its utility. That is, it is almost universally a result-effective variable. Therefore, the skilled artisan would, if nothing else, optimize this parameter as a matter of routine experimentation with an eye towards the intended application of the polymer compound. "Discovering an optimum value of a result effective variable involves only routine skill in the art." *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

This rejection will not be made final because it was possible to reject claim 7 over Tokutake et al. in an earlier stage of prosecution but the Examiner had failed to do so.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc S. Zimmer whose telephone number is 571-272-1096. The examiner can normally be reached on Monday-Friday 8:00-4:30.

Art Unit: 1712

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

November 1, 2005

*Marc Zimmer*  
*Marc Zimmer*  
*AU 1712*